

## Appendix 3.1

### Consolidated Long Range Plan Recommendations

Recommendations with a double asterisk (\*\*) are those that could be eliminated.

#### HABITAT PROTECTION (HP)

##### **Timber Harvest** (TH)

**HP Objective 1: Protect stream and riparian habitat from potential damages by timber harvesting and related activities.**

**TH 1:** Develop salmonid habitat protection standards for timber harvest

**TH 2:** Form CRMPs in important watersheds to deal with timber issues

**TH 3:** Improve monitoring of impacts from timber harvest, including cumulative watershed effects (CWE)

**TH 4:** Seek improvement of stream protection on private lands through revision of the California Forest Practice Rules including: 1) decreased disturbance of erodible soils, 2) improved protection of riparian zones, and 3) allowing watershed rest in basins over CWE thresholds to promote aquatic habitat recovery.

**TH 5:** Work to improve timber harvest practices on USFS lands by 1) protecting to the least damaged salmonid habitats, 2) protecting riparian habitats, 3) decreasing activities on unstable soil types and 4) providing adequate time for recovery before new timber harvest in watersheds over cumulative effects thresholds.

##### **Mining** (M)

**HP Objective 2: Ensure that mining activities do not cause damage to fish habitat.**

##### **Suction Dredge Mining**

**M 1\*\*:** Work with CDFG to maintain mining closures of important summer steelhead streams and to shorten the mining season in streams where late spawning winter steelhead may be effected.

**M 2\*\*:** Request that CDFG have all miners flag dredge holes to reduce problems for fishermen.

**M 3\*\*** Request CDFG to improve record keeping to keep track of the number, location and dredge size of various mining activities.

### Other Mining Practices

**M 4:** Support a bonding requirement for large scale mines and ensure that mining sites have a proper reclamation plan.

**M 5:\*\*** Request lead Surface Mining and Reclamation Act (SMARA) agencies to assess fines for non-compliance with SMARA regulations.

**M 6:** Promote the abatement of any water quality and habitat problems associated with abandoned mining operations.

### Agricultural Impacts (AG)

**HP Objective 3: Protect and improve water quality of stream habitat from adverse agricultural impacts.**

As with previous sections, educational policies offered in the Long Range Plan have been moved to Community Education under Objective 6B and those dealing with monitoring to the Monitoring section. Many of the policies in this section also cross over with restoration objectives and some have been moved to Habitat Restoration (Objective 3).

**AG 1:** Encourage “best management practices” to reduce the amounts of animal waste and fertilizers entering watercourses, focusing initially on demonstration projects.

**AG 2:** Explore options for restoration easements.

**AG 3:** Investigate and pursue other funding sources to abate non-point source pollution and to improve riparian conditions on private farm and ranch lands

### Large Dams (LD)

**HP Objective 4: Protect salmon and steelhead habitat from harmful effects of water and power projects in the Klamath Basin.**

**LD 1.** Promote adequate fish protection in relicensing of the Iron Gate Hydroelectric Project

**LD 2.** Oppose further large scale water storage projects until habitat problems from existing ones are remedied and there is proof that new projects will not contribute to habitat problems

**LD 3.** Oppose additional out of basin transfers from the Klamath or Trinity Rivers of water required for protection and restoration of anadromous fish

**LD 4.** Advocate improved flows on the Trinity River to better mimic the natural pre-dam flow conditions

**LD 5.** Remedy problems related to large dam operation such as 1) access for salmon and steelhead above Iron Gate Dam and 2) poor water quality and insufficient flows below Iron Gate Dam and Lake Shastina

**Small Scale Diversions** (SD)

**HP Objective 5: Protect the instream flow needs of salmon and steelhead in streams affected by water diversion.**

**SD 1.** Involve landowners in the Shasta and Scott Basins in developing solutions to instream flow problems

**SD 2.** Fund water conservation measures which will provide significant benefit to fisheries

**SD 3.** Investigate and pursue other funding sources to help implement water conservation measures

**SD 4.** Support effective screening of all agricultural diversions

**SD 5.\*\*** Support needed changes in California water rights so 1) water rights holders are not penalized for conservation, 2) instream uses like fisheries can have water rights and 3) water rights transfers can be made to instream uses

**SD 6.** If changes are made in the law, support purchase of water rights from willing sellers for the purpose of improved flows for fisheries

**SD 7.** Seek enforcement of Scott River Adjudication through the Watermaster, including compliance with October 15 diversion deadline for stream appropriations

**SD 8.** Encourage legal action by the USFS to achieve minimum flows for fish under the Scott River Adjudication

**SD 9.** Ask the SWRCB to enforce water rights conditions pertaining to "unreasonable use" in the Klamath River Basin

**HABITAT RESTORATION** (HR)

**HR Objective - Restore the habitat of anadromous fish of the Klamath River by using appropriate methods that address the factors that limit the production of these species**

**HR 1.\*\*** Technically sound projects which benefit "stocks of concern" recognized by the Task Force should receive priority for funding

**Riparian Conditions** (R)

**R 1** Improve riparian conditions in the Shasta and Scott Basins

**R 2:** (NEW) Restore riparian areas in forested basins.

**Control Sediment Sources** (S)

**S 1:** Work with CDF, EPA and the SWRCB to monitor progress on abatement of sediment problems and encourage stepped up enforcement of clean water laws if necessary

**S 2:** Use the Scott River sediment study to prioritize actions to decrease erosion in decomposed granite watersheds and fund appropriate actions

**S 3:** Work with the USFS, private timber land owners and others to insure that erosion from existing roads is decreased and that new roads pose a minimal risk of increased erosion

**S 4:** Implement erosion control measures in Pine Creek in the Lower Klamath Basin and work to minimize erosion from future land use to make it a "model" watershed

**Fish Passage** (FP)

**FP 1:** \*\* Find a solution to fish passage problems over the agricultural diversion on lower Horse Creek

**FP 2:** \*\* Study the feasibility of removing fish migration barriers in Middle Klamath Basin tributaries such as Humbug Creek and Rock Creek

**Instream Structure Criteria** (IS)

**IS 1.** Proposed projects to structurally increase fisheries habitat in any Klamath tributary will be evaluated as to whether:

- The erosion potential in the watershed and the expected sediment yield would place the project at risk during moderate storm events (10 year interval or less).
- The stream channel remains highly aggraded and, thus, likely to threaten the stability of the proposed structure.
- The project is properly engineered in terms of its setting (gradient and channel type) and expected flows.

- Habitat assessment has been conducted and the suspected limiting factors identified.
- The proposed project has a clear goal of remedying the identified limiting factors.
- The proposal includes methods to evaluate whether the goal of the project has been reached after project implementation (ideally, a demonstration of its positive cost-benefit performance).
- The project budget includes cost estimates for maintenance.

#### FISH POPULATION PROTECTION (FPP)

**FPP Objective: Strive to protect the genetic diversity of anadromous fishes in the Klamath River Basin**

**FPP 1:** Use self-sustaining, native fish populations as the gauge for Restoration Program success, not hatchery fish or fish that stray from hatcheries

**FPP 2:** Provide support for local involvement by volunteers in salmon counts

**FPP 3:** Seek increased penalties for poaching salmon and steelhead from local and State jurisdictions

**FPP 4:** Support continuation of fish rescue efforts associated with fish screen operations in the Shasta, Scott and Middle Klamath Basins

**FPP 5:** \*\* Determine escapement goals based on carrying capacity

**FPP 6:** \*\* Support high seas driftnet bans

#### FISH POPULATION RESTORATION (HATCHERIES)

**FPR Objective 1: Iron Gate Hatchery and Trinity Hatchery should be operated to produce salmon and steelhead to mitigate for the losses of habitat above their dams and, at the same time, strive to reduce impacts on native fish.**

#### Large Hatcheries (LH)

**FPR Objective 1: Iron Gate Hatchery and Trinity Hatchery should be operated to produce salmon and steelhead to mitigate for the losses of habitat above their dams and, at the same time, strive to reduce impacts on native fish.**

**LH 1:** Work in coordination with other basin interest groups (KFMC, Trinity Task Force and Tribes) to insure that large scale hatcheries are operated in such a way as to maximize production for harvest but to minimize impacts on native stocks

**LH 2:** Conduct studies to determine optimal planting levels at Iron Gate and Trinity River hatcheries relative to carrying capacity as well as release strategies that minimize impact on native fish

**LH 3:** Press CDFG for universal marking of all hatchery coho salmon and steelhead and at least consistent fractional marking of chinook salmon at both Iron Gate and Trinity River hatcheries

**LH 4:** Encourage hatchery practices that maintain fitness of hatchery broodstocks and minimize straying which impacts wild fish

**LH 5:** \*\* Use surplus hatchery eggs for “enhancement” and harvest supplementation

**LH 6** \*\* Conduct studies on Iron Gate Hatchery steelhead C. shasta resitance

**LH 7:** \*\* Support acquisition of Iron Gate Hatchery water filter (DROP)

#### **Small Scale Hatcheries (SH)**

**FPR Objective 2: Small-scale rearing programs should be temporary measures, primarily for the purpose of accelerating the rebuilding of locally-adapted native salmon and steelhead populations, and operated to maintain the genetic integrity of such populations. Ideally, small-scale rearing programs should be operated in conjunction with habitat restoration projects.**

**SH 1:** Formulate guidelines for small scale hatchery operation that will avoid negative impacts on native stock genetic characteristics

**SH 2** Provide guidelines for small scale hatcheries with regard to 1) trapping protocols, 2) disease control, 3) broodstock management, 4) marking all release groups, 5) release strategies and 6) project evaluation.

**SH 3:** Conduct studies in tributaries with hatcheries to determine 1) prudent planting levels, 2) release strategies that least impact wild fish and 3) bench marks for escapement so that projects can be discontinued when “seeding” goals are met

**SH 4:** Consider green sturgeon artificial culture as part of restoration strategy for this species

**SH 5:** Explore potential for expanding rearing programs to include steelhead and coho salmon

### **Win Cooperation** (WC)

**WC 1** Hold trainings on restoration techniques and opportunities and bid and contracts work to increase local involvement

**WC 2:** Give preferences to projects with strong local participation

**WC 3:** Encourage the formation of local sub-basin restoration groups

**WC 4:** Enter into formal long-term cooperative relationships with the USFS, CRMPs, RCDs, Indian Tribes and others

### **MONITORING(M -)**

#### **Monitoring Timber Harvest** (MTH)

**MTH1:** Include fish habitat and population data in State Water Resources Control Board and U.S. Environmental Protection Agency processes

**MTH2:** Improve monitoring to discern cumulative watershed effects (CWE) and recovery of stream habitat in logged watersheds

**MTH3:** Evaluate watershed conditions and sediment production potential in logged basins

**MTH4:** Evaluate riparian conditions in logged areas, such as use of the RAPID technique (Grant, 1988) to determine riparian recovery of Lower Klamath Basin tributaries

#### **Monitoring Mining** (MM)

**MM1:** Study cumulative effects of a large number of suction dredges

**MM2:** Study the impacts of large (6-10 inch) dredges used in the Klamath

**MM3:** Pursue water quality studies to discern lingering effects from abandoned pit mines

#### **Monitoring Agriculture** (MAG) ((Non-point Source Pollution and Riparian)

**MAG1:** Monitor water quality trends related to non-point source pollution related to agriculture

**MAG2:** Assess riparian conditions and trends over time

### **Monitoring Flows** (MF)

**MF1:** Evaluate the instream flow needs of the Shasta and Scott Rivers and their tributaries

### **Monitoring Fish Habitat Conditions** (MFH)

**MFH1:** Find funding or partnerships (USFS) to complete habitat typing or other quantitative assessment of all basin streams.

**MFH2:** Evaluate spawning and rearing habitat above Iron Gate Dam

**MFH3:** Evaluate in-stream flow needs for all life stages of anadromous salmonids in the Klamath River below Iron Gate Dam using state of the art methods.

**MFH 4:** Examine the effects of Lake Shastina on the Shasta River's flow and water quality problems below Iron Gate Dam using state of the art methods

### **Monitoring Water Quality** (MWQ)

**MWQ 1:** Work with agencies such as the EPA, SWRCB and USFS which have water quality monitoring responsibilities to study water quality parameters of interest to the Restoration Program.

**MWQ 2:** Monitor water quality above, within and below Copco and Iron Gate Reservoirs for five years to determine the effects of storage and power plant operation on downstream fish habitat conditions

### **Monitoring Fish Population** (MFP)

**MFP 1:** Monitor fall chinook stock groups annually, including runs in the Scott, Shasta and Salmon River, selected Middle Klamath tributaries and Blue Creek

**MFP 2:** Support volunteer monitoring of anadromous salmonid stocks in cooperation with CDFG

**MFP 3:** Monitor spring chinook both in the Salmon River and in net harvests in the lower river

**MFP 4:** Monitor summer steelhead populations annually

**MFP 5:** Study fish rescue efforts associated with diversions and determine the survival of fish captured and transferred downstream



**MF 6:** Request that CDFG use data from guides and punch cards to gauge changes in catch success rates and trends over time

**MFP 7:** Monitor green sturgeon through analysis of in-river fishing data but also include range, distribution and vulnerability in fisheries outside the Klamath

**MFP 8:** Collect additional information on life history patterns and stock structure of the basin's anadromous salmonids

**MFP 9:** Encourage study of cutthroat trout, eulachon and Pacific lamprey

### **Monitoring Hatcheries** (MH)

#### **Fish Health**

**MH 1: New Recommendation:** Monitor fish health to better understand problems for hatchery fish from diseases and the link between environmental stresses and epidemiology.

**MH 2: New Recommendation** Conduct studies of hatchery performance and marking strategies as they pertain to harvest and interactions between hatchery fish and wild fish.

**MH 3: New Recommendation** Evaluate small scale rearing programs to determine their cost-effectiveness and to discern possible interactions with wild fish.

### **EDUCATION (E)**

**Education Objective- Promote public interest in the Klamath River Basin's anadromous fish, their beneficial use and habitat requirements and gain support for the Restoration Program's plans and efforts to restore fish habitat and populations.**

#### **Public Schools**

**E 1:** Continue developing curriculum

**E 2** Encourage school districts integrate Klamath River Education Program (KREP) materials into their regular curriculum

**E 3** Sponsor workshops and conferences to keep teachers updated about the Restoration Program

**E 4** Budget for \$10,000 annually for school "mini-grants" to keep schools involved in river studies related to restoration

## Community Education

**E 5** Provide educational forums for foresters

**E 6:** Minimize impacts of suction dredge mining by educating miners as to their potential impacts on fish habitat

**E 7:** Sponsor local workshops for farmers and ranchers

**E 8:** Support 4H programs related to riparian restoration

**E 9:** Encourage development of interpretive programs at I-5 rest area and at the mouth of the Klamath at Highway 101 on the Yurok Reservation

**E 10:** Assemble a suitable display for county fairs

**E 11:** The Task Force should maintain public education programs to reduce poaching

**E12:** Work with angler groups, resort owners, guides and county fish and game advisory committees to promote angler awareness of the Restoration Program's goals and objectives.

**E13:** Conduct workshops for state, county and private road maintenance personnel concerning methods for decreasing sediment contributions from roads.

**E14:** Join with the Klamath Basin tribes in sponsoring a conference about the Indian fisheries.

## PROGRAM ADMINISTRATION

**PA Objective: Provide adequate and effective administration to successfully implement the Restoration Plan and Program.**

**PA 1:** Involve interests or agencies not represented on the Task Force through several methods:

**PA 1a.** Decision-making: Task Force members should each try to reflect public interest and equity values in their decisions and not just the views of their organization.

**PA 1b.** Technical Work Group membership: Appointments of technical specialists from other agencies or groups should be made to this Task Force subcommittee, which solicits and evaluate project proposals.

**PA 1c.** Public Involvement: Task Force should continue seeking public opinion at its meetings but also develop or support working groups to address different problems or

problem areas. Coordinated Resource Management and Planning (CRMP) is another method to involve a wide spectrum of participants.

Done. The TF has tasked sub-committees on some matters, including Upper Basin Amendment and Mid-term Evaluation workplan development. The TF has encouraged and funded CRMP development in Shasta, Scott and Salmon sub-basins. See discussion in Chapter 6.

**PA 1d.** Cooperative or interagency agreements should be used to carry out restoration activities with non-Task Force agencies, which may be jointly funded.

**PA 2.** Ensure the decision-making process will work well.

**PA 2a.** Arrange a training session for the Task Force in the consensus decision-making process.

**PA 2b.** As an option, use the "abstention" position when a member does not feel strongly enough about a proposal to vote "no," yet cannot support the proposal.

**PA 2c.** \*\* Adoption of rules similar to the "T/F/W Ground Rules," under which each member agrees to work.

**PA 2d.** Actively seek to negotiate a compromise that considers the needs of all parties.

**PA 2e.** Retain the consensus approach to decision-making.

**PA 3.** Assign Committees, made up of Task Force and Technical Work Group members or representatives, to monitor each of the Plan's major components: Habitat Protection and Management, Habitat Restoration, Population Protection (includes liaison with Council), Population Restoration, Education and Communication, and Administration. Committees shall report at each Task Force meeting about progress of policy implementation.

**PA 4.** Formally evaluate plan and program progress and provide for amendments to the Plan.

**PA 4a.** A Program Review shall be done every 5 years during the Program's lifespan. The first Program Review should begin in 1995, followed by reviews in the years 2000 and 2005.

**PA 4b.** An Annual Progress Report appropriate for public review shall briefly summarize the results of Task Force actions and projects to date, including an accounting of the costs. Both Federally and non-Federally funded projects should be included.

**PA 4c.** Plan Amendments shall be provided for on a regular basis, as new information and conditions arise. Policy changes should be based on new findings in the text.

**PA 5.** The Program should continued to use a mix of USFWS staff, consultants, and TF committees to meet its administrative needs. Part-term Program evaluations should continue to include analyses of staffing and budget-related issues.

**PA 6.** Ensure adequate funding is available to implement the Plan.

**PA 7.** Promote and provide opportunities for information sharing.

**PA 7a.** Klamath River Fishery Resource Office should develop a catalogued technical library as the repository for completed project reports, historical and recent Klamath Basin references, and other pertinent restoration materials.

**PA 7b.** Klamath River Fishery Resource Office should regularly produce a newsletter for continuous communication about ongoing and completed projects and their results, as well as other related topics.

**PA 7c. [New]** Use the Klamath Resource Information System (KRIS) as the Program's database for monitoring and evaluating fish population, fish habitat and water quality recovery efforts.

**PA 7d.** Support publication of the results of Task Force funded projects in the scientific literature, periodicals for the general public, and a Klamath River Fishery Resource Office Technical Report Series.

**PA 8.** Improve the understanding of agency jurisdictions.

**PA 9. [New]** The TF should actively confer with State and federal authorities responsible for stream protection in the basin, including the Department of Fish and Game and the California Department of Forestry and Fire Protection concerning the continuing need for improved stream protection standards under the provisions of the State Forest Practice Act, Fish and Game stream modification regulations (F&G Code Section 1600 et seq.) and other stream protection laws.

**PA 10.** Provide comments on proposed public and private projects within the Basin that have the potential for affecting the implementation and success of the Restoration Plan and Program.

### Appendix 3-2. Summary of Annual Project Expenditures

FYP-Abbrev	PRJ_ID	COOPERATOR	PROJ_TITLE	FUNDED	SPENT	
89	E	E-3.1	Diane Higgins	4-6 grade: Develop classroom curriculum, teach	67,000	67,000
90	E	E	CA Salmon and Steelhead Rest. Fe	Conference	1,500	1,500
90	E	E-3.21	Chico State University	A Benchmark Study of Public Knowledge of the	18,265	5,859
90	E	E-3.1	Diane Higgins	7-8 grade: Develop classroom curriculum, teach	68,040	68,040
91	E	E-6	Diane Higgins	9-12 grade: aquatic education program	67,335	67,335
91	E	E-1	Etna Elementary School District	Kidder Creek Enviro. School - fish field study	2,685	2,681
91	E	E-4	Paula Yoon	Portable information display for Klamath Fisher	7,777	7,750
92	E	E-14	CA Salmon and Steelhead Rest. Fe	10th Annual Conf	2,500	2,500
92	E	E-13	Klamath Forest Alliance	Salmon ED Workshops	1,600	1,600
92	E	E-0	Native American Fish & Wildlife Soc	Annual conference to discuss fish and wildlife is	1,000	1,000
92	E	E-11	UC Extension Davis	Conference on decomposed granitic soil: Probl	4,000	4,000
93	E	E-03	Hoopa Valley Tribe	11th Annual Conference	3,000	3,000
93	E	E-13	Hoopa Valley Tribe	Salmon Education Community Workshop	2,500	2,500
93	E	E-06	Paula Yoon	Portable information display for upper Klamath	8,350	8,350
93	E	E-09	Paula Yoon	Klamath River Field Trip	500	500
93	E	E-02	USFS Six Rivers NF, Orleans	Public fisheries education through nonconsump	2,750	2,750
93	E	E-15	USFWS Klamath River FWO	Klamath Symposium	1,000	1,000
94	E	E-06	Diane Higgins	Klamath River Education Program K-3	36,059	36,059
94	E	E-04	Klamath Forest Alliance/SRRC	Salmon River Stewardship and Education Proje	3,500	3,500
94	E	E-02	Paula Yoon	Eureka High School Klamath River Project	1,265	1,265
94	E	E-07	Siskiyou RCD	1994 California Salmonid Restoration Conferen	3,000	3,002
94	E	E-04a	USFS Klamath National Forest	Salmon River Stewardship and Education Proje	1,120	1,120
95	E	E-07	Forks of Salmon School	Watershed Education and Stewardship Proj	7,513	-----
96	E	E-03	Klamath Trinity Unified School Distr	Camp Creek caring kids protection projec	4,500	-----
<b>E TOTAL</b>				<b>316,759</b>	<b>292,311</b>	

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FYP-Abrv	PRJ_ID	COOPERATOR	PROJ_TITLE	FUNDED	SPENT	
89	FP	FP-2.21	Calif. Dept. of Fish and Game	Estimate fall chinook escapement operating ad	41,700	41,700
89	FP	FP-2.25	Calif. Dept. of Fish and Game	Hydroacoustic weir, Salmon River	21,400	21,400
89	FP	FP-2.12	Humboldt State University	Study to determine tagging needs for time/area	36,383	36,165
89	FP	FP-2.31	USFS Klamath National Forest	Steelhead escapement, selected tributaries	73,368	73,368
89	FP	FP-2.22	USFWS Coastal Calif. FWO	Fall Chinook escapement, Lower Klamath subb	24,000	18,630
89	FP	FP-2.23	USFWS Coastal Calif. FWO	Fall Chinook escapement, Blue Creek	43,800	43,052
89	FP	FP-2.51	USFWS Coastal Calif. FWO	Trap outmigrants on the lower Klamath River m	27,200	23,102
90	FP	FP-01	Karuk Tribe of California	Karuk Tribal Harvest Monitoring Program	15,295	15,295
90	FP	FP-4.3	Pacific States Marine Fisheries Con	Temporary help for Yreka Screen Shop	23,911	23,911
90	FP	FP-2.21	USFS Klamath National Forest	Spawning ground utilization surveys	81,568	81,568
90	FP	FP	USFS Klamath National Forest	Unknown	15,000	13,864
90	FP	FP-2.52	USFS Six Rivers NF	Camp Creek Downstream Migrant study	14,993	12,445
90	FP	FP-2.22	USFWS Coastal Calif. FWO	Habitat/fish inventory of the lower tribs to	24,000	21,688
90	FP	FP-2.23	USFWS Coastal Calif. FWO	Blue Creek studies	53,400	52,359
90	FP	FP-2.51	USFWS Coastal Calif. FWO	Trap outmigrants on the Klamath River mainste	27,200	27,839
91	FP	FP-193	Calif. Dept. of Fish and Game	Modify and repair Shasta River fish counting fa	17,777	17,777
91	FP	FP-01	Karuk Tribe of California	Karuk Tribal Harvest Monitoring Program	19,537	19,537
91	FP	HR-15	Pacific States Marine Fisheries Con	Yreka Screen Shop	27,589	27,589
91	FP	FP	USFS Klamath National Forest	Unknown	10,500	9,183
91	FP	FP-03	USFWS Coastal Calif. FWO	Investigations on lower tributaries to the Klamat	40,500	49,363
91	FP	FP-04	USFWS Coastal Calif. FWO	Evaluation of chinook stocks of Blue Creek, sta	57,400	59,473
91	FP	FP-05	USFWS Coastal Calif. FWO	Monitoring Klamath River Yearling Salmonid Er	2,750	3,003
91	FP	FP-06	USFWS Coastal Calif. FWO	Monitoring of juvenile chinook salmon	27,750	27,649
92	FP	FP-8	California Polytechnic State U	population differentiation of spring and fall chinc	18,434	18,434
92	FP	FP-11	Hoopa Valley Tribe	Estimate population size and range	14,058	14,058
92	FP	FP-12	Hoopa Valley Tribe	Monitor outmigrants	49,128	48,548
92	FP	FP-16	Pacific States Marine Fisheries Con	Temporary help for Yreka Screen Shop	29,118	29,118
92	FP	FP-7	USFWS CA/NV Fish Health Center	Health and physiology monitoring of hatchery a	10,105	10,567
92	FP	FP-2	USFWS Coastal Calif. FWO	Status of salmon and steelhead stocks of Blue (	58,729	58,010
92	FP	FP-5	USFWS Coastal Calif. FWO	Age composition /scale analysis of Klamath Fal	5,450	3,166
92	FP	FP-04	USFWS Coastal Calif. FWO	Monitoring of Klamath River Yearling Salmonid	3,000	4,334
93	FP	FP-03	Pacific States Marine Fisheries Con	Temporary help for Yreka Fisheries Habitat Imp	31,118	15,216
93	FP	FP-13	USDA Forest Service Research	Age and growth of Klamath River green sturgec	3,823	4,507
93	FP	FP	USFS Klamath National Forest	Tech support	4,000	1,905
93	FP	FP-04	USFWS CA/NV Fish Health Center	Health and physiology monitoring of hatchery a	14,000	11,882
93	FP	FP-05	USFWS Coastal Calif. FWO	Monitoring of Klamath River Yearling juv salmo	9,000	8,791
93	FP	FP-06	USFWS Coastal Calif. FWO	Age composition /scale analysis of Klamath Fal	7,350	7,408

### Appendix 3-2. Summary of Annual Project Expenditures

FYP-Abbrev	PRJ_ID	COOPERATOR	PROJ_TITLE	FUNDED	SPENT	
93	FP	FP-07	USFWS Coastal Calif. FWO	Fall Chinook spawning escapement survey	15,228	15,533
94	FP	FP-10	USFWS CA/NV Fish Health Center	Health/physiology evaluation of hatchery yearlir	10,000	9,475
94	FP	FP-19	USFWS Coastal Calif. FWO	Age Composition of the 1993 Klamath River Fa	7,850	8,583
95	FP	FP	USFS Klamath National Forest	Tech support	1,000	1,000
95	FP	FP-01	USFWS CA/NV Fish Health Center	Health physiology and migration characteristics	21,455	18,417
95	FP	FP-03	USFWS Coastal Calif. FWO	Age composition of the 1994 Klamath River	10,582	10,648
95	FP	FP-08	USFWS Coastal Calif. FWO	Mainstem Klamath River Fall Chinook spawner	26,900	25,349
95	FP	FP-11	USFWS Coastal Calif. FWO	Spring emigration assessment of Klamath	28,105	26,635
95	FP	FP-12	Yurok Tribe	Assess chinook/coho salmon Blue Creek	43,307	34,331
95	FP	FP-07	Yurok Tribe and Humboldt State U.	Genetic analysis of Klamath Green Sturgeon	21,102	21,102
96	FP	FP-27	Hoopa Valley Tribe	Pine Creek Stocks	20,155	-----
96	FP	FP-23	Siskiyou RCD/CRMP	Locally built fish screens for Scott River	14,787	2,410
96	FP	FP-13	USFWS Coastal Calif. FWO	Age Composition fall chinook	11,146	-----
96	FP	FP-18	USFWS Coastal Calif. FWO	Klamath Spawning Escapement	32,771	32,771
96	FP	FP-20	USFWS Coastal Calif. FWO	Spring emigration assessment	52,260	-----
96	FP	FP-11	Yurok Tribe	Blue Creek Population Assessment	39,835	36,840
96	FP	FP-12	Yurok Tribe	Eulachon / Lamprey Assessment	6,076	4,822
97	FP	FP-08	USFWS Coastal Calif. FWO	Monitoring Klam Riv Juv Salmo springtime emi	39,052	-----
97	FP	FP-11	USFWS Coastal Calif. FWO	Mainstem Klamath River Fall Chinook spawner	29,656	-----
97	FP	FP-09	Yreka Union High School	Salmon spawning ground survey and river studi	3,410	2,018
<b>FP TOTAL</b>				<b>1,419,011</b>	<b>1,205,838</b>	

### Appendix 3-2. Summary of Annual Project Expenditures

FYP-Abrv	PRJ_ID	COOPERATOR	PROJ_TITLE	FUNDED	SPENT	
89	FR	FR-5.11	Calif. Dept. of Fish and Game	Evaluation of salmon production at Iron Gate H	56,700	56,700
89	FR	FR-5.12	Calif. Dept. of Fish and Game	Evaluation of pond rearing of chinook salmon	26,600	26,600
90	FR	FR-117	Northern Calif. Indian Dev Council	Middle Klamath chinook rearing pond operation	135,653	135,140
91	FR	FR-03	Calif. Dept. of Fish and Game	Evaluation of Mid-Klamath River Pond Rearing	27,600	27,600
91	FR	FR-01	Northern Calif. Indian Dev Council	Yurok Reservation late run fall chinook returnin	99,818	99,818
91	FR	FR-02	Northern Calif. Indian Dev Council	Late run fall chinook gill net capture project	33,950	33,950
92	FR	FR-04	Karuk Tribe of California	Orleans community rescued steelhead rearing p	1,412	1,412
92	FR	FR-02	Northern Calif. Indian Dev Council	Late run fall chinook gill net capture project	13,184	13,184
92	FR	FR-003	Northern Calif. Indian Dev Council	Yurok reservation fish rescue and rearing projec	400	400
92	FR	FR-06	Northern Calif. Indian Dev Council	Klamath river yearling chinook salmon rearing p	101,712	101,711
92	FR	FR-09	Northern Calif. Indian Dev Council	Yurok reservation late run fall chinook rearing p	133,058	133,058
92	FR	FR-01	Orleans Rod and Gun Club	Klamath River Steelhead Enhancement Project	9,550	8,263
93	FR	FR-06	Northern Calif. Indian Dev Council	Yurok Reservation Late Fall Chinook Accelerate	156,873	156,873
93	FR	FR-09	Northern Calif. Indian Dev Council	Mid-Klamath Chiook Restoration/Acceleration	160,333	160,333
93	FR	FR-03	Orleans Rod and Gun Club	Orleans community anadromous fish rearing	12,476	7,670
93	FR	FR-13a	USFWS Coastal Calif. FWO	Age and growth of green sturgeon	4,507	4,507
94	FR	FR-04	Northern Calif. Indian Dev Council	Mid KlamathChinook Accelerated Restoration F	151,787	151,787
94	FR	FR-02	Northern Calif. Indian Dev Council	Yurok Reservation Late Run Fall Chinook Stock	143,915	84,366
94	FR	FP	USFS Klamath National Forest	Technical Support	1,000	1,000
95	FR	FR-01	Lara, Walter Jr.	Lower Yurok Res. Late Run Chinook Stocking F	55,574	55,574
96	FR	FR-04	Karuk Tribe of California	Native stock enhancement: Camp Creek	13,000	13,000
97	FR	FR-04	Karuk Tribe of California	Camp Creek Native Stock Enhancement Progr	142,816	128,405
<b>FR Total</b>				<b>1,481,918</b>	<b>1,401,351</b>	



### Appendix 3-2. Summary of Annual Project Expenditures

FYP-Abbrv	PRJ_ID	COOPERATOR	PROJ_TITLE	FUNDED	SPENT	
89	HP	HP-2.61	Calif. Dept. of Water Resources	Potential for augmenting flow in the Scott River	36,000	35,964
89	HP	HP-2.42	Hoopa Valley Tribe	Erosion site inventory and restoration plan deve	31,905	31,905
89	HP	HP-4.14	Siskiyou RCD	Develop a sediment budget for Scott sub basin,	50,000	50,000
89	HP	HP-2.41	USFS Klamath National Forest	Habitat type and standing crop estimate on 125	74,956	74,956
90	HP	HP-2.42	Hoopa Valley Tribe	Pine Creek habitat evaluation/improvement	31,188	31,188
90	HP	HP-2.71	Shasta Valley RCD	Shasta River fisheries water quality project	24,470	24,470
90	HP	HP-4.2	Siskiyou RCD	Scott River subbasin sediment study, Phase II	30,768	30,768
90	HP	HP-2.41	USFS Klamath National Forest	Habitat productivity survey	45,247	38,853
91	HP	HP-01	Energy and Resource Advocate	A remote sensing and GIS feasilbility analysis	36,830	36,829
91	HP	HP-10	Siskiyou RCD	Inventory riparian zone of valley reach of Scott	7,054	7,054
91	HP	HP-07	USFS Klamath National Forest	South Fork of the Salmon River Watershed inv	18,500	18,500
91	HP	HP-09	USFS Klamath National Forest	Salmon sub-basin sediment analysis	38,190	38,190
92	HP	HP-01	Hoopa Valley Tribe	Monitoring of sedimentology in anadromous sal	38,662	35,785
92	HP	HP-15	Karuk Tribe of California	Water temperature monitoring of the Klam Rive	24,000	24,000
93	HP	HP-15	Karuk Tribe of California	Water temp monitoring of the Klamath Mainstei	12,740	8,905
93	HP	HP-02	USFS Klamath National Forest	Coarse woody material condition surveys	4,800	-----
93	HP	HP-13	USFS Klamath National Forest	Crapo Creek WIN inventory	16,000	16,000
94	HP	HP-08	Great Northern Corp.	Grenada Irrigation District monitoring project	7,275	6,959
94	HP	HP02	Siskiyou RCD	Temperature monitoring on the Scott River	9,418	9,405
95	HP	HP	Calif. Dept. of Water Resources	Gauging stations	16,350	16,350
95	HP	HP-06	Karuk Tribe of California	Water temperature monitoring of the Klam Rive	24,864	-----
95	HP	HP-03	University of California	Assess fall agriculture irrigation on Scott River	10,463	10,463
95	HP	HP-01	USFS Klamath National Forest	Horse Creek cattle exclusion fencing	7,961	7,376
96	HP	HP-04	Great Northern Corp.	USGS guaging station: Shasta River	6,600	6,600
96	HP	HP-07a	National Biological Survey	Water quantity and routing model	45,000	45,000
96	HP	HP-07b	Oregon State University	Cold water refugial study and videography	21,000	21,000
96	HP	HP-05	Siskiyou RCD	Temperature monitoring	8,650	4,321
96	HP	HP-06	Siskiyou RCD	USGS guaging station: Scott River	5,500	5,500
96	HP	HP-01	UC Davis	Klamath River/Quality Assessment	62,136	50,121
96	HP	HP-03	University of California	Ag irrigation asesment- Phase II	5,380	-----
96	HP	HP-07c	Utah State University	Review of water quantity / routing model	5,000	5,000
97	HP	HP-08	Great Northern Corp.	Water quality study (instrument 2)	46,000	-----
97	HP	HP-02	Siskiyou RCD	Scott River watershed temp monitoring program	7,948	-----
97	HP	HP-03	UC Davis	Pilot coldwater refugia study (part 2)	21,128	-----
97	HP	HP-08a	Utah State University	Review of water quantity / routing model	4,000	-----
HP Total					835,983	691,462

### Appendix 3-2. Summary of Annual Project Expenditures

FYP-Abrv	PRJ_ID	COOPERATOR	PROJ_TITLE	FUNDED	SPENT	
89	HR	HR-4.15	City of Yreka	Control bank erosion	10,000	10,000
91	HR	HR-65	Hoopa Valley Tribe	Control or prevent erosion of sediment into Pine	61,811	61,811
91	HR	HR-112	USFS Klamath National Forest	Provide native plants to reseed riparian zones in	13,960	13,960
92	HR	HR-24	Northern Calif. Indian Dev Council	Yurok Reservation/Tarup Creek stream mouth r	10,192	-----
92	HR	HR-17	Shasta Valley RCD	Easton bank protection and riparian fencing	7,191	7,191
93	HR	HR-33	Great Northern Corp.	Parker riparian fence construction	45,356	45,356
93	HR	HR-25	USFS Klamath National Forest	Big Flat slide stabilization	7,260	5,705
93	HR	HR-38	USFS Klamath National Forest	Native seed collection - Salmon River drainage	4,544	-----
94	HR	HR-34	Great Northern Corp.	Riparian planting evaluation	31,816	16,551
94	HR	HR-37	Great Northern Corp.	Generic fencing	59,929	51,930
94	HR	HR-23	Klamath Forest Alliance/SRRC	Community restoration of riparian ecosystems	7,500	7,500
94	HR	HR-15	Siskiyou RCD	Scott River riparian woodland revegetation	31,039	31,039
94	HR	HR-32	Siskiyou RCD	Stockwater for chinook - Scott Valley Irr Dist	7,580	7,580
94	HR	HR-33	Siskiyou RCD	Scott River riparian woodland revegetation	12,117	12,117
94	HR	HR-10	USFS Klamath National Forest	Horse Creek restoration project	30,057	25,331
94	HR	HR-21	USFS Klamath National Forest	Stabilization analysis for the Monte Creek - 86 l	25,721	-----
94	HR	HR-23a	USFS Klamath National Forest	Community restoration of riparian ecosystems	1,100	1,100
95	HR	HR-23	Great Northern Corp.	Fiock ranch pumping system	24,058	19,256
95	HR	HR-25	Great Northern Corp.	Shasta River riparian fencing project	60,809	19,615
95	HR	HR-19	Siskiyou RCD	Scott River flow enhancement pilot project	11,819	11,438
95	HR	HR-21	Siskiyou RCD	Demo alt bank stabilization methods	54,857	54,857
95	HR	HR-12	USFS Klamath National Forest	Horse Creek migration improvement barrier	65,000	62,939
95	HR	HR-18	USFS Klamath National Forest	Canyon Creek spawning gravel development	5,336	5,336
96	HR	HR-05	Great Northern Corp.	Shasta riparian restoration	16,200	14,362
96	HR	HR-20	Siskiyou RCD	Streambank protect/fencing Tozier Ranch	50,000	50,000
96	HR	HR-06	Siskiyou RCD/CRMP	Riparian woodland revegetation	30,281	-----
97	HR	HR-01	CCC/USFS	Coop Lower/Mid Klamath Sub Basin	33,865	-----
<b>HR TOTAL</b>				<b>719,398</b>	<b>534,974</b>	

### Appendix 3-2. Summary of Annual Project Expenditures

FYP-Abrv	PRJ_ID	COOPERATOR	PROJ_TITLE	FUNDED	SPENT
89 PA-KFO		Klamath Field Office - Yreka	Administration	178,105	178,105
90 PA-KFO		Klamath Field Office - Yreka	Administration	228,151	228,151
91 PA-KFO		Klamath Field Office - Yreka	Administration	333,694	333,694
92 PA-KFO		Klamath Field Office - Yreka	Administration	329,815	329,815
93 PA-KFO		Klamath Field Office - Yreka	Administration	306,083	306,083
94 PA-KFO		Klamath Field Office - Yreka	Administration	306,989	306,989
95 PA-KFO		Klamath Field Office - Yreka	Administration	344,382	344,382
96 PA-KFO		Klamath Field Office - Yreka	Administration	302,558	302,558
97 PA-KFO		Klamath Field Office - Yreka	Administration	321,146	321,146
<b>PA-KFO Total</b>				<b>2,650,923</b>	<b>2,650,923</b>
89 PA-RO		Portland USFWS RO	Administration	50,000	50,000
90 PA-RO		Portland USFWS RO	Administration	114,061	114,061
91 PA-RO		Portland USFWS RO	Administration	80,000	80,000
92 PA-RO		Portland USFWS RO	Administration	80,000	80,000
93 PA-RO		Portland USFWS RO	Administration	80,445	80,445
94 PA-RO		Portland USFWS RO	Administration	80,000	80,000
95 PA-RO		Portland USFWS RO	Administration	-----	-----
96 PA-RO		Portland USFWS RO	Administration	-----	-----
97 PA-RO		Portland USFWS RO	Administration	80,000	80,000
<b>PA-RO Total</b>				<b>564,506</b>	<b>564,506</b>

## Appendix 3-2. Summary of Annual Project Expenditures

FYP-Abbrv	PRJ_ID	COOPERATOR	PROJ_TITLE	FUNDED	SPENT
93 PC-319	PC-01a	Siskiyou RCD	Scott River Coordinator	31,780	31,780
<b>PC-319 Total</b>				<b>31,780</b>	<b>31,780</b>
92 PC-CRM	PC-2	Great Northern Corp.	Shasta Rvier CRMP Field Projects Coordinator	56,791	56,791
92 PC-CRM	PC-2	Shasta Valley RCD	Operating expenses for Shasta Valley CRMP	2,090	2,090
93 PC-CRM	PC-03	Klamath Forest Alliance/SRRC	Develop and implement Salmon River Comm. I	30,500	28,675
93 PC-CRM	PC-01	Siskiyou RCD	Scott Valley CRMP	24,134	24,095
94 PC-CRM	PC-01	Great Northern Corp.	Salmon River Community Restoration Program	10,000	10,000
95 PC-CRM	PC-05	Great Northern Corp.	Shasta River CRMP	25,920	25,920
95 PC-CRM	PC-03	Klamath Forest Alliance/SRRC	Salmon River Community Restoration Program	15,775	15,775
95 PC-CRM	PC-04	Siskiyou RCD	Scott River Watershed Coordinated Resource	32,258	32,258
96 PC-CRM	PC-FLOW	Great Northern Corp.	Geomorphic and sediment evaluation	13,836	-----
96 PC-CRM	PC-05	Great Northern Corp.	Shasta CRMP	35,477	22,309
96 PC-CRM	PC-06	Salmon River Restoration Council	Salmon River Community Restoration Program	21,375	21,375
96 PC-CRM	PC-04	Siskiyou RCD	Scott CRMP	32,340	29,058
97 PC-CRM	PC-05	Great Northern Corp.	Shasta River CRMP Coordinator	25,000	-----
97 PC-CRM	PC-04	Karuk Tribe of California	Middle Klam River Sub-basin Planning	25,000	-----
97 PC-CRM	PC-07	Salmon River Restoration Council	Salmon River Comm Rest Program (CRP-97)	25,000	18,750
97 PC-CRM	PC-03	Siskiyou RCD	Scott River Watershed Co Res Mgt Plan (CRMI	39,006	-----
97 PC-CRM	PC-06	Yurok Tribe	Watershed Analysis and Planning in Low. Klam	25,000	10,190
<b>PC-CRMP Total</b>				<b>439,502</b>	<b>297,286</b>
91 PC-HSU	PC-10	Humboldt State University	A Comparative Analysis of Klamath Basin Ecosy	10,281	10,281
95 PC-HSU	PC-06	Humboldt State University	Sub-basin Planning and Project Development	50,400	50,399
97 PC-HSU	PC-01	Humboldt State University	A Comparative Analysis of Klamath Basin Ecosy	42,618	38,458
<b>PC-HSU Total</b>				<b>103,299</b>	<b>99,138</b>
89 <sup>2</sup> C-PIRe	PC-1.1	William M. Kier Associates	Kier, Develop Long Range Plan and Enviro. As:	142,057	142,057
90 <sup>2</sup> C-PIRe	PC-1.1	William M. Kier Associates	Long Range Plan to include Upper Klam Sub b:	28,226	27,905
97 <sup>2</sup> C-PIRe	PC-10	William M. Kier Associates	Mid Program Review	90,000	28,937
<b>PC-PIRev Total</b>				<b>260,283</b>	<b>198,899</b>